



Unidrive M200

Integration through flexible communications

0.25 kW - 110 kW Heavy Duty (0.33 hp - 150 hp)
100 V | 200 V | 400 V | 575 V | 690 V



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Unidrive M200 features

M201 variant has additional speed reference potentiometer

Optional AI-485 Adaptor for RS485 communications

Optional AI-Back-up Adaptor and AI-Smart Adaptor allows the drive to use an SD card for parameter cloning and acts as an input for 24 V back-up

Optional AI-Smart Adaptor has built-in 4 GB memory for parameter cloning and 24 V back-up

Optional IP66 (NEMA 4) rated remote keypad with intuitive plain text multilingual back-lit LCD display for rapid set-up and superior diagnostics. An optional IP54 (NEMA 12) remote real time clock keypad is also available

LED keypad fitted as standard for quick commissioning and easy use

User-friendly control connections

Conventional surface and DIN rail mounting* (Up to 1.5 kW)

Useful parameter guide on drive front panel

Easy-to-disconnect internal EMC filter

Drive rated to IP21 / UL open class (NEMA 1) on size 1 to 4 as standard

User-friendly power connections

Conduit kits are available to meet UL Type 1 rating

Robust cable management system providing grounding point for shielded control and power cables

System Integration (SI) option module

System Integration (SI) module slot for communications, fieldbus and additional I/O options (frame size 2 and upwards)

*Additional fixings recommended where heavy vibration is expected

Unidrive M200 option choices and terminal layout

Control Mode

1. Open loop vector or V/Hz induction motor control
2. Open loop Rotor Flux Control for induction motors (RFC-A)



Input/Output

SI-I/O



- 4 x Digital I/O
- 3 x Analog inputs (default) / Digital inputs
- 1 x Digital input
- 2 x Relays

Onboard



- 3 x Analog I/O
- 5 x Digital I/O
- 1 x Relay

Communications

AI-485 Adaptor



SI-EtherCAT



SI-PROFIBUS



SI-Ethernet



SI-DeviceNet



SI-CANopen



SI-PROFINET



DC back up power supply



AI-Back-up Adaptor and AI-Smart Adaptor (Input for 24 V back-up)





Optional Drive Programming and Operator Interface

Unidrive M Connect



Operator Interface



M200 - Fixed LED keypad



M201 - Fixed LED keypad with speed reference potentiometer



Remote keypad RTC



AI-Back-up Adaptor (provides SD card usage for programming / cloning)



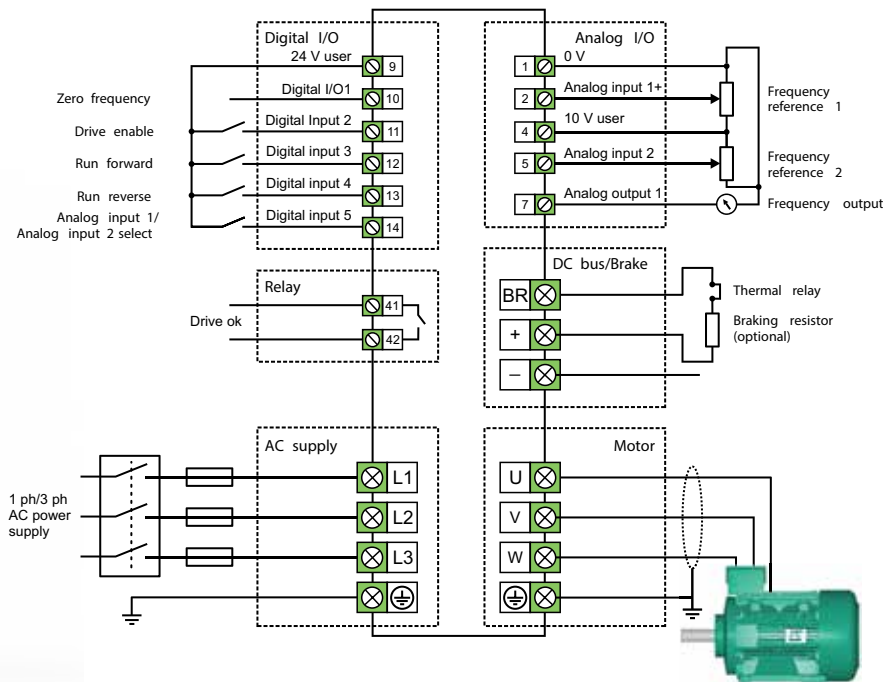
AI-Smart Adaptor (provides SD card (supplied) usage for programming / cloning)



Remote Keypad (LCD)

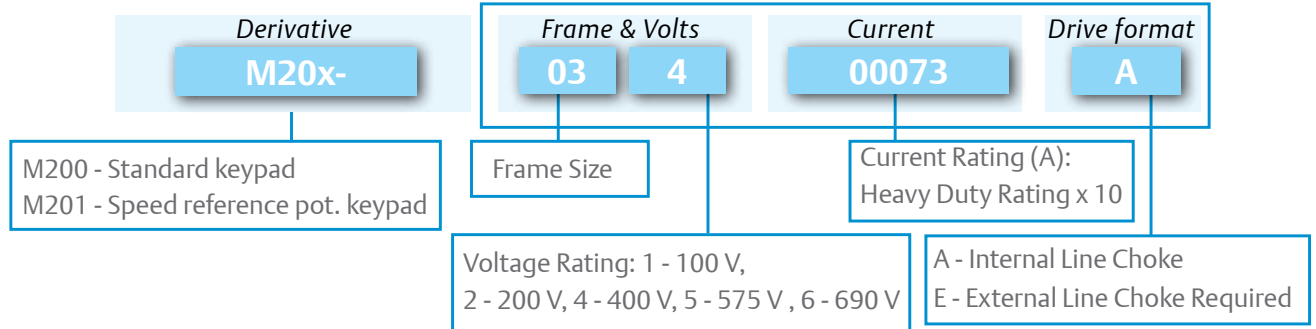


Terminal Layout



Unidrive M200 and M201 ratings and specifications

Key:



100/120 Vac ±10 %						
Order Code	Supply Phases	Heavy Duty			Normal Duty	
		Max Continuous Current (A)	Motor Shaft Power (kW)	Motor Shaft Power (hp)	Max Continuous Current (A)	Motor Shaft Power (kW)
M200-011 00017A	1	1.7	0.25	0.33	For Normal Duty applications, use Heavy Duty ratings.	
M200-011 00024A	1	2.4	0.37	0.5		
M200-021 00042A	1	4.2	0.75	1		
M200-021 00056A	1	5.6	1.1	1.5		

200/240 Vac ±10 %							
Order Code	Supply Phases	Heavy Duty			Normal Duty		
		Max Continuous Current (A)	Motor Shaft Power (kW)	Motor Shaft Power (hp)	Max Continuous Current (A)	Motor Shaft Power (kW)	Motor Shaft Power (hp)
M200-012 00017A	1	1.7	0.25	0.33	For Normal Duty applications, use Heavy Duty ratings.		
M200-012 00024A	1	2.4	0.37	0.5			
M200-012 00033A	1	3.3	0.55	0.75			
M200-012 00042A	1	4.2	0.75	1			
M200-022 00024A	1/3	2.4	0.37	0.5			
M200-022 00033A	1/3	3.3	0.55	0.75			
M200-022 00042A	1/3	4.2	0.75	1			
M200-022 00056A	1/3	5.6	1.1	1.5			
M200-022 00075A	1/3	7.5	1.5	2			
M200-032 00100A	1/3	10	2.2	3			
M200-042 00133A	1/3	13.3	3	3			
M200-042 00176A	3	17.6	4	5			
M200-052 00250A	3	25	5.5	7.5			30
M200-062 00330A	3	33	7.5	10	50	11	15
M200-062 00440A	3	44	11	15	58	15	20
M200-072 00610A	3	61	15	20	75	18.5	25
M200-072 00750A	3	75	18.5	25	94	22	30
M200-072 00830A	3	83	22	30	117	30	40
M200-082 01160A	3	116	30	40	149	37	50
M200-082 01320A	3	132	37	50	180	45	60
M200-092 01760A	3	176	45	60	216	55	75
M200-092 02190A	3	219	55	75	266	75	100
M200-092 01760E	3	176	45	60	216	55	75
M200-092 01760E	3	219	55	75	266	75	100

380/480 Vac ±10 %							
Order Code	Supply Phases	Heavy Duty			Normal Duty		
		Max Continuous Current (A)	Motor Shaft Power (kW)	Motor Shaft Power (hp)	Max Continuous Current (A)	Motor Shaft Power (kW)	Motor Shaft Power (hp)
M200-024 00013A	3	1.3	0.37	0.5	For Normal Duty applications, use Heavy Duty ratings.		
M200-024 00018A	3	1.8	0.55	0.75			
M200-024 00023A	3	2.3	0.75	1			
M200-024 00032A	3	3.2	1.1	1.5			
M200-024 00041A	3	4.1	1.5	2			
M200-034 00056A	3	5.6	2.2	3			
M200-034 00073A	3	7.3	3	3			
M200-034 00094A	3	9.4	4	5			
M200-044 00135A	3	13.5	5.5	7.5			
M200-044 00170A	3	17	7.5	10			
M200-054 00270A	3	27	11	20	30	15	20
M200-054 00300A	3	30	15	20	31	15	20
M200-06400350A	3	35	15	25	38	18.5	25
M200-064 00420A	3	42	18.5	30	48	22	30
M200-064 00470A	3	47	22	30	63	30	50
M200-074 00660A	3	66	30	50	79	37	60
M200-074 00770A	3	77	37	60	94	45	75
M200-074 01000A	3	100	45	75	112	55	75
M200-084 01340A	3	134	55	100	155	75	100
M200-084 01570A	3	157	75	125	184	90	125
M200-094 02000A	3	200	90	150	221	110	150
M200-094 02240A	3	224	110	150	266	132	200
M200-094 02000E	3	200	90	150	221	110	150
M200-094 02240E	3	224	110	150	266	132	200

500/575 Vac ±10 %							
M200-055 00030A	3	3	1.5	2	3.9	2.2	3
M200-055 00040A	3	4	2.2	3	6.1	4	5
M200-055 00069A	3	6.9	4	5	10	5.5	7.5
M200-065 00100A	3	10	5.5	7.5	12	7.5	10
M200-065 00150A	3	15	7.5	10	17	11	15
M200-065 00190A	3	19	11	15	22	15	20
M200-065 00230A	3	23	15	20	27	18.5	25
M200-065 00290A	3	29	18.5	25	34	22	30
M200-065 00350A	3	35	22	30	43	30	40
M200-075 00440A	3	44	30	40	53	37	50
M200-075 00550A	3	55	37	50	73	45	60
M200-085 00630A	3	63	45	60	86	55	75
M200-085 00860A	3	86	55	75	108	75	100
M200-095 01040A	3	104	75	100	125	90	125
M200-095 01310A	3	131	90	125	150	110	150
M200-095 01040E	3	104	75	100	125	110	125
M200-095 01310E	3	131	90	125	150	110	150

500/690 Vac ±10 %							
M200-076 00190A	3	19	15	20	23	18.5	25
M200-076 00240A	3	24	18.5	25	30	22	30
M200-076 00290A	3	29	22	30	36	30	40
M200-076 00380A	3	38	30	40	46	37	50
M200-076 00440A	3	44	37	50	52	45	60
M200-076 00540A	3	54	45	60	73	55	75
M200-086 00630A	3	63	55	75	86	75	100
M200-086 00860A	3	86	75	100	108	90	125
M200-096 01040A	3	104	90	125	125	110	150
M200-096 01310A	3	131	110	150	155	132	175
M200-096 01040E	3	104	90	125	125	110	150
M200-096 01310E	3	131	110	150	155	132	175

Unidrive M200 and M201 ratings and specifications

Environmental safety and electrical conformance

- **Size 1 to 4:**
IP21 / UL open class (NEMA 1). IP20 when the AI Adaptors are fitted.
UL TYPE 1 compliance requires the appropriate conduit kit to be fitted.
- Ambient temperature -20 °C (4 °F) to 40 °C (104 °F) as standard. 60 °C/ 140 °F with derating for frames 1-4.
- **Size 5 to 9:**
IP20 / UL open class (NEMA 1). UL TYPE 1 compliance requires the appropriate conduit kit to be fitted.
IP65 / UL TYPE 12 rating is achieved on the rear of the drive when through panel mounted (9E is IP55).
- Ambient temperature -20 °C (4 °F) to 40 °C (104 °F) as standard. 55 °C/ 131 °F with derating for frames 5-9.
- **Applicable to all:**
- Storage temperature -40 °C to 60 °C (-40 °F to 140 °F).
- Humidity 95 % maximum (non-condensing) at 40 °C (104 °F) in accordance with EN/IEC 60068-2-78 and ANSI/EIA-364-31.
- EN/IEC 60068-2-60, Method 4 Corrosive gas.
- Altitude: 0 to 3000 m (0 to 9843 ft), derate 1 % per 100 m (328 ft) between 1000 m and 3000 m (3281 ft and 9843 ft).
- Random Vibration: Tested in accordance with EN/IEC 60068-2-64 with SI and AI option modules fitted.
- Mechanical Shock: Tested in accordance with EN/IEC 60068-2-29.
- Electromagnetic Immunity complies with EN/IEC 61800-3 and EN/IEC 61000-6-2.
- With onboard EMC filter, complies with EN/IEC 61800-3 (2nd environment).
- EN/IEC 61000-6-3 and EN/IEC 61000-6-4 with optional footprint EMC filter.
- EN/IEC 60146-1-1 Supply conditions.
- EN/IEC 61800-5-1 Electrical Safety.
- EN/IEC 61131-2 I/O.
- UL 508C Electrical Safety.

Unidrive M200 feature and specification table

Performance	Current loop update: 125 µs
	Heavy Duty peak rating: 180 % (3 s), 150 % (60 s)
	Normal Duty peak rating: 110 % (165 s)
	Maximum output frequency: 550 Hz
	Switching frequency range: 0.67, 1, 2, 3, 4, 6, 8, 12, 16 kHz (3 kHz default)
Mechanical attributes	DIN rail mountable (size 1 and 2) up to 1.5 kW (2 hp)*
	Commander SK compatible mechanical footprint either as standard or with conversion plates
Parameter back-up	Unidrive M Connect
	SD card (using optional AI-Back-up Adaptor)
	Smart Adaptor
Onboard I/O	2 x Analog inputs, 1 x Analog output
	4 x Digital inputs, 1 x Bidirectional digital input or output
	1 x Relay output
Back-up power	24 V control back-up (using optional AI-Back-up Adaptor) AI-Smart Adaptor (built-in memory for parameter cloning and 24 V back-up)
Other	Temperature controlled fan with standby (off)
	User replaceable fan(s)
	Conformal coating IEC 60721-3-3 3C3
	Standby mode (energy saving)
	User defined security levels (e.g. restricted access or read-only parameters via user defined security code)

*Additional fixings recommended where heavy vibration is expected

Dimensions and Weight



Frame Size		1	2	3	4	5	6	7	8	9A	9E
Dimensions	mm	137x75x130	180x75x150	200x90x160	245x115x175	365x143x192	365x210x221	508x270x280	753x310x290	1049x310x290	1010x310x290
	(H x W x D) in	5.4x3.0x5.1	7.1x3.0x5.9	7.9x3.5x6.3	9.7x4.5x6.9	14.4x5.6x7.6	14.4x8.3x8.7	20x10.6x11	29.6x12.2x11.4	41.3x12.2x11.4	39.8x12.2x11.4
Weight	kg (lb)	0.75(1.65)	1.0(2.2)	1.5(3.3)	3.13(6.9)	7.4(16.3)	14(30.9)	45(99.2)	50(110.2)	66.5(146.6)	46(101.4)

Notes:

Height dimension (H) does not include fixed mounting feet on sizes 1 to 4 or removable mounting brackets on sizes 5-9E
Additional distance should be added to the height dimension (H) when the following options are fitted:

- AI-Back-up Adaptor: 15 mm (0.59 in)
- AI-485 Adaptor: 26 mm (1.02 in)
- AI-Smart Adaptor: 15 mm (0.59 in)

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